

Hungarian Patent
Office

NOVELTY SEARCH REPORT

Application No. P0105211

Category	P C T	Identification data of relevant documents	Relevant to claim No.	Classification of the application IPC 6
Y	*	See the attached international search report PCT/JP0000210 (WO 0043313) HU P0105207 A Gazette of Patents and Trademarks 29.04. 2002	... 1-12	C01B 704 B01J 2346 Examined special field IPC 6 C01B 704 B01J 2346
Date: 23. 07. 2003		Person performing the search: Ms. Dombi		
<p>* from the PCT Search Report</p> <p>Categories of relevant documents:</p> <p>X: document comprising all the essential features of the examined solution</p> <p>Y: document comprising all the essential features of the examined solution in combination with one or two other documents</p> <p>A: document defining the state of art</p>		<p>O: document referring to public use, exploitation, oral communication, exhibition or any other type of disclosure</p> <p>P: document published prior to the Hungarian filing date but later than the priority date claimed</p> <p>E: Hungarian patent or utility model specification having an earlier priority date and being published after the priority date of the examined application</p>	<p>D: document cited by applicant as belonging to the state of the art in the examined application</p> <p>&: document member of the same patent family (analogue)</p>	

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP00/00210

A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl.⁷ C01B 7/04, B01J 23/46

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl.⁷ C01B 7/04, B01J 23/46

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho	1926-1996	Toroku Jitsuyo Shinan Koho	1994-2000
Kokai Jitsuyo Shinan Koho	1971-2000	Jitsuyo Shinan Toroku Koho	1996-2000

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

JOIS, WPI/L(DIALOG)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	EP, 861803, A1 (AIR PRODUCTS AND CHEMICALS, INC.), 02 September, 1998 (02.09.98), page 2, line 3 to page 4, line 2; page 7, lines 11 to 18; page 8, Table 1 & JP, 10-251002, A page 3, column 4, line 6 to page 5, column 8, line 31; page 8, column 14, line 47 to page 9, column 15, line 12; page 10, Table 2 & CA, 2229993, A & KR, 98071631, A	1-5, 12 6-11
Y	EP, 761593, A1 (BASF AKTIENGESELLSCHAFT), 12 March, 1997 (12.03.97), page 7, line 26 to page 8, line 2; page 11, line 12 to page 12, line 57 & JP, 9-118503, A page 6, column 10, lines 10-50; page 9, column 16, line 27 to page 11, column 20, line 18 & DE, 19533660, A & KR, 97015457, A	6-9, 11
Y	WO, 97/11026, A1 (UNIVERSITY OF SOUTHERN CALIFORNIA BASF AKTIENGESELLSCHAFT), 27 March, 1997 (27.03.97),	1-5

☒ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

<p>* Special categories of cited documents:</p> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier document but published on or after the international filing date</p> <p>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p>	<p>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</p> <p>"&" document member of the same patent family</p>
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Date of the actual completion of the international search
28 April, 2000 (28.04.00)

Date of mailing of the international search report
16 May, 2000 (16.05.00)

Name and mailing address of the ISA/
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP00/00210

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
	page 3, line 32 to page 5, line 16; Fig.3 & JP, 11-511433, A page 6, line 28 to page 8, line 21; Fig.3 & US, 5639436, A & AU, 9672490, A & EP, 851834, A & NO, 9801288, A	
Y	JP, 10-194705, A (Sumitomo Chemical Company, Limited), 25 July, 1997 (25.07.97), page 3, column 3, lines 14-40; page 6, column 9, line 31 to column 10, line 4 & DE, 19734412, A & US, 5908607, A	6-10
Y	JP, 10-15389, A (Mitsui Toatsu Chemicals Inc.), 20 January, 1998 (20.01.98), page 3, column 3, lines 12-43 (Family: none)	11

Érvényes
Ügyszám: P0105207

Bejelentés napja: 2000.01.19
Közzététel napja: 2002.04.29

PCT bejelentés száma: JP0000211
PCT közzététel száma (WO): 0160743

NSZO: C01B 704; B01J 2346

Cím: **Eljárás klór előállítására**

Angol cím: METHOD FOR PRODUCING CHLORINE

Bejelentő: Sumitomo Chemical Co. Ltd., Osaka (JP)

Feltaláló: Suzuta, Tetsuya, Chiba (JP)

Iwanaga, Kiyoshi, Chiba (JP)

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Kivonat (közzétételi):

A találmány tárgya eljárás klór előállítására oly módon, hogy sósavtartalmú gázban a sósavat oxigéntartalmú gázzal oxidálják egy fix-ágyas reakciórendszerben, amely egy katalizátorral töltött rétegből álló reakciózónát tartalmaz, ahol a gáz felületi lineáris sebessége egy oszlopban 0,70–10 m/sec.

Az eljárás szerint fenntartják a katalizátor stabil aktivitását, és a klórt jó termeléssel, stabilan lehet előállítani, minthogy a katalizátorral töltött rétegben elnyomják a túlmelegedő helyet, és a katalizátorral töltött réteget hatékonyan lehet használni.

Intézkedések

3. Nemzetközi bejelentés közzététele (A2) (QJ)

Intézkedés kelte: 2002.03.04 meghirdetése: 2002.04.29 (BB9A Szabadalmi bejelentések közzététele)

ABSTRACT

A process for producing chlorine comprising the step of oxidizing hydrogen chloride in a gas containing hydrogen chloride with a gas containing oxygen in a fixed bed reaction system having a reaction zone comprising a catalyst-packed layer, wherein a superficial linear velocity of the gas in a column is from 0.70 to 10 m/sec. According to this process, the stable activity of the catalyst is maintained and chlorine can be stably obtained at a high yield since the excessive hot spot in the catalyst-packed layer is suppressed and the catalyst-packed layer can be effectively used.